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U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

1969 ANNUAL REPORT
OF

PLANT MATERIALS CENTER

COFFEEVILLE, MISSISSIPPI

PART 2



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Organization of the
Soil Conservation Service
Plant Materials Center
Coffeeville, Mississippi

Plant Materials Center Staff

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COFFEEVILLE PLANT MATERIALS CENTER
ANNUAL TECHNICAL REPORT
1969

PART II

This report covers the technical activities of the Coffeeville Plant Materials Center for the calendar year, 1969.

The Coffeeville Plant Materials Center is located approximately seven miles west of Coffeeville, Mississippi on the Tillatoba Road. It is situated in the loessial soil resource area and comprises about 195 acres of land leased from the U. S. Forest Service. The principal soils are:

Waverly - Poorly drained acid bottom land with 0 - 2 percent slope.

Grenada silt loam - Moderately well drained upland soil with gentle to steep slope. Erosion is moderate to severe.

Callaway silt loam - Somewhat poorly drained upland soil, nearly level to gently sloping. Erosion is slight to moderate.

Lesser amounts of other soils also occur there, giving varying soil conditions on which plants can be tested.

Weather Summary

Temperatures of the winter of 1968 - 69 were milder than usual. The summer of 1969 was quite hot, with periods of drought which affected certain crops adversely. Highs of 100 degrees + were recorded in late June. Periods of drought occurred in June, July, and August and rainfall was below normal in the fall of 1969. A monthly rainfall summary for the year follows:

January	3.08 inches	May	3.66 inches	September	3.49 inches
February	6.31 "	June	2.28 "	October	2.00 "
March	4.07 "	July	3.48 "	November	6.08 "
April	7.41 "	August	3.43 "	December	9.59 "

Total rainfall for the year, 55.04 inches

GRASSES, LEGUMES, AND HERBACEOUS PLANTS

Codes:
P - Perennial
NG - No Germination
1 - Excellent

3 - Good
5 - Fair

7 - Poor
9 - Very Weak

10 - Winter Kill

A - Annual
B - Bunch
S - Sod

Species	PI or MS	Date	Growth	Seed.	Leaf	Seed	Winter	Mature	Plant
	Other No.:No.	:Planted:	Type	Vigor:	Prod.:	Injury:	ity:	Height	
Agropyron obtusiusculum	261099	387	10-24-62	PB	3	0	1	June	2 1/2'
" smithi		2349	3-25-66	PS	5	5	1	"	2'
"		2350	"	PB	5	3	1	"	3'
Ammophila breviligulata		2181	10-22-65	PB	3	7	1	Oct	2 1/2'
"	BN 9026	2195	11-9-65	PS	3	7	1	"	2'
Andropogon annularis	PMT 586	2114	5-28-69	PB	5	3	5	July	5'
"	PMT 587	2157	5-11-66	PB	5	3	3	"	3'
"	PMT 694	2914	5-15-69	B	1	1	3	"	3'
Andropogon caucasicus	PMT 588	2913	5-28-69	B	5	3	3	"	3'
" divergens		361	Oct. 61	PB	5	5	1	Oct.	3'
" gerardi	BN 9982	139	5-19-61	PB	3	5	1	Sept.	4'
"	BN 9703-60	253	5-10-62	PB	3	3	1	"	4 1/2'
"	NY 1145-1	942	3-22-65	PB	3	3	1	"	3'
"	NY 1145-2	943	5-31-63	PB	5	5	1	"	5'
"	AM 59	2244	5-11-66	PB	3	1	1	Oct	7 1/2'
" littoralis		1734	5-22-64	PB	5	7	1	"	2'
"		2200	11-9-65	PB	5	7	5	Sept.	1'
ischaemum		419	5-10-62	PB	3	1	3	Aug.	2 1/2'
maritimus	F 3813	2363	5-4-66	PB	3	7	1	Oct.	2'
pertusus		2932	10-4-68				10	"	
rhizomatus	F 1378	1719	3-12-64	PS	3	7	1	Nov.	2'
scoparius		332	10-12-61	PB	1	1	1	Oct	4 1/2'
"		333	10-13-61	PB	3	1	1	"	4'
"	BN 4496	447	4-27-62	PB	1	1	1	Sept.	3 1/2'
"	NC 62-15	748	4-11-63	PB	1	1	1	"	3 1/2'
" (Sel.	PI 217039	1772	5-27-64	PB	3	1	1	Oct.	4 1/2'
stolonifer	F 2857	2356	4-20-66	PS	3	9	3	Nov.	3 1/2'
"	F 836	223	4-22-63	PS	3	9	3	"	4'

GRASSES, LEGUMES, AND HERBACEOUS PLANTS

Codes:

A - Annual

P - Perennial

NG - No Germination

1 - Excellent

3 - Good

5 - Fair

7 - Poor

9 - Very Weak

10 - Winter Kill

B - Bunch

S - Sod

V - Vine

Species	PI or MS	Date	Growth	Seed	Leaf	Seed	Winter	Matu-	Plant
	Other No.:	No.:	Planted:	Type	Vigor:	Prod.:	Injury:	urity	Height
<i>Apios americana</i>	2587	5-10-67	PV	3	3	9	1	Oct.	40"
<i>Arachis burkartii</i>	AM 692	4-25-69	PB	3	3	7	1	"	6"
<i>Arachis glabrata</i>	162601	4-25-69	PB	3	3	7	1	"	6"
<i>Arachis glabrata</i> v. <i>hagenbeckii</i>	AM 1532	"	PB	3	3	7	1	"	6"
"	AM 1533	"	PB	3	3	7	1	"	6"
"	263393	5-26-67	AB	3	3	7	1	Nov.	18"
"	AM 1292	4-25-69	AB	1	3	7	1	Oct.	6"
<i>Arundinella anomala</i>	BN 11260	5-15-69	NG	3	3	5	1	Sept.	2'
<i>Belamcanda chinensis</i>	AM 2356	1-12-66	PB	3	3	3	10	Oct.	4'
<i>Bothriochloa intermedia</i>	241498	5-9-63	PB	3	3	3	10	Oct.	3'
"	6580	5-15-69	PB	5	5	5			
"	PMT 1069	"	NG						
"	PMT 1062	"	NG						
"	PMT 1065	"	PB	3	3	5			
<i>Bouteloua curtipendula</i>	2183	5-11-66	PB	3	3	5	1	Oct.	3 1/2'
"	2189	"	PB	3	3	5	1	"	2'
<i>Bromus erectus</i>	805	10-29-63	PB	3	3	5	1	Sept.	2 1/2'
"	251106	"	PB	3	3	5	1	July	2 1/2'
"	253301	"	PB	3	3	5	1	"	2 1/2'
"	251107	"	PB	3	3	5	1	"	2 1/2'
"	BN 12091	"	PB	3	3	5	1	"	2 1/2'
"	283197	10-22-65	PB	5	5	3	1	June	4'
"	292257	10-29-63	PB	3	3	5	1	"	2'
"	292258	10-22-65	PB	3	3	7	1	"	3'
"	284107	"	PB	3	3	5	1	"	2'
"	284109	"	PB	3	3	5	3	"	2 1/2'
"	284110	"	PB	3	3	5	3	"	2 1/2'
"	284111	"	PB	3	3	5	3	"	2 1/2'
"	284112	"	PB	3	3	5	3	May	2 1/2'
"	284788	"	PB	5	5	9	1	"	3'
"		"	PB	3	3	3	1	"	2 1/2'

GRASSES, LEGUMES, AND HERBACEOUS PLANTS

GRASSES, LEGUMES, AND HERBACEOUS PLANTS																	
Codes:	Species	Other No.:No.	MS	PI or	Good	Excellent	5 - Fair		9 - Very Weak		Winter Kill	Seed	Leaf	Prod.:Prod.	Injury	Height	
							Date	Poor	Growth	Seed.							10 -
A - Annual	Cakile cakilé	3044					5-15-69		NG								
P - Perennial	Canavalia lineata	2694					5-24-68		AV								
NG - No Germination	Carex sp.	931					5-1-63		PS								
	" "	932					"		PS								
	" "	933					"		PS								
	Cenchrus ciliaris	2878					5-24-68		AS								
	" "	2879					"		AS								
	Centrosema virginianum	2454					5-10-67		PV								
	Chloris acicularis	23825					5-15-69		B								
	" castilloniana	316200					"		B								
	" cucullata	315683					"		B								
	" gayana	PWT 972					5-23-68		AB								
	" "	316203					"		AB								
	" "	283226					"		AB								
	" myriostachya	200213					5-15-69		B								
	" pectinata	238260					"		B								
	" pycnothrix	199955					"		B								
	" roxburghiana	207632					"		B								
	" truncata	279931					"		B								
	" ventricosa	257692					"		B								
	Chrysopogon fulvus	215586					5-15-63		PB								
	Coreopsis lanceolata	2378					6-15-66		PB								
	Coronilla c.varia	204871					5-27-66		PS								
	" "	20487					"		PS								
	" "	210365					"		PS								
	" "	228411					"		PS								
	" "	229968					"		PS								
	" "	238142					"		PS								
	" "	251808					"		PS								
	" "	253435					"		PS								
	" "	274040					"		PS								
	" "	274041					"		PS								
	" "	278698					"		PS								

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V - Vine

GRASSES, LEGUMES, AND HERBACEOUS PLANTS

Species	PI or	MS	Date	Growth	Seed.	leaf	Seed	Winter	Matu-	Plant
	Other No.	No.	Planted:	Type	Vigor:	Prod.:	Injury:	Prod.	Prod.	Prod.
Coronilla w.crown v.	NC 61-8	327	9-28-61	PS	3	3	3	3	1	July
"		328	5-27-66	PS	3	3	3	3	1	"
"		449	"	PS	3	3	3	3	1	"
"		513	"	PS	3	3	3	3	1	"
Cynodon dactylon	BN 4198	527	5-14-62	PS	3	3	3	3	1	Aug.
"		2136	4-30-75	PS	3	3	3	3	1	"
"		2371	5-12-66	PS	3	3	3	3	1	"
"		2372	5-6-66	PS	3	3	3	3	1	"
"		2386	7-5-66	PS	3	3	3	3	1	"
"		2638	5-24-67	PS	3	3	3	3	1	"
"		2643	7-10-67	PS	3	3	3	3	1	Oct
Cyperus sp.,		935	5-29-63	PS	3	3	3	3	1	Aug.
"		937	"	PS	3	3	3	3	1	June
Dactyloctenium australe	299588	2702	5-24-68	PA	3	3	3	3	1	Sept.
Digitaria diversinervis	299613	2592	4-20-67	PS	3	3	3	3	10	"
Digitaria eriantha	106663	522	7-22-68	PB	1	1	1	1	10	Aug.
"	302766	2605	4-20-67	PS	3	3	3	3	1	July
"	299743	2929	6-28-68	PS	3	3	3	3	3	Aug.
"	299800	2607	4-20-67	PS	1	1	1	1	10	"
"	299826	2609	"	PS	1	1	1	1	7	"
"	AM 1655	2930	6-28-68	PS	3	3	3	3	3	"
"	286505	2606	4-20-67	PB	3	3	3	3	1	Sept.
"	299858	2612	"	PS	3	3	3	3	2	"
"	299878	2616	"	PS	3	3	3	3	3	"
"	299879	2619	"	PS	3	3	3	3	5	"
Echinacea sp.,		2869	5	69 NG	3	3	3	3	3	"
Echinochloa crusgalli	F 812	182	5-15-69	AB	3	3	3	3	5	Sept.
"	173754	187	"	AB	3	3	3	3	5	"
"	219606	188	7-11-68	AB	5	5	5	5	2	"
"	325314	2992	5-15-69	AB	1	1	1	1	2	July
"		2934	"	AB	3	3	3	3	4	Sept.
frumentacea	BN 8963	181	5-15-69	AB	3	3	3	3	4	"

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Species	PI or MS	Date	Growth	Seed	Leaf	Winter	Injury	Plant
	:Other No.:	No.:	Type	Vigor:	Prod.:	Prod.:	Injury:	Height

Echinochloa haplocladia	226065	3074	5-15-69	AB	3	5	5	3'
" holubii	207924	924	5-2-68	PB	3	3	3	3'
" sp.,	331385	2993	5-15-69	AB	5	5	1	16"
" "	331387	2994	"	AB	5	5		5'
Eleocharis dulcis	106274	1642	3-24-64	P	0	3	1	2 1/2'
Eleocharis sp.,	938		5-63	PB	3	3	1	3 1/2'
" "	939		5-16-63	PB	3	3	1	3'
Eragrostis ferruginea	BN 12589	3046	5-15-69	NG				
" robusta	234218	443	5-7-65	PB				3'
" "	209-385	394	5-7-65	PB				3'
Eremochloa ophiuroides	BN 15989	2575	3-17-67	PS	3	5	3	3'
Equisetum hiemale		2555	2-16-67	P				2 1/2'
Erianthus ravennae	BN 8009	2576	3-14-61	PB				Pros.
Bestuca ampla	238315	275	9-24-62	PB	3	5	1	5'
" "	240157	688	10-24-62	PB	3	5	1	10-11"
" arundinacea		537	10-15-62	PB	3	3	1	2 1/2'
" "		539	10-27-67	PB	3	3	1	4'
" "		689	10-5-62	PB	3	3	1	3'
" "		690	10-24-64	PB	3	3	1	4 1/2'
" "	264766	691	"	PB	3	3	1	4'
" "	302996	2262	10-27-67	PB	3	3	1	4'
" "	203728	2329	"	PB	3	3	1	3'
" "	AM 1420	2410	9-2-66	PB	3	3	1	3'
" "	BN 15904-66	2563	10-27-67	PB	1	5	1	3 1/2'
" "		2656	"	PB	3	3	1	1 1/2'
" "		2657	"	PB	3	3	1	3'
" "		2658	"	PB	3	3	1	3'
" "		2659	"	PB	3	3	1	3'
" "	292602	2707	10-30-69	NG				3'
" "	292603	2708	"	NG				3'
" "		1601	10-27-57	PB	3	3	1	4'

GRASSES, LEGUMES, AND HERBACEOUS PLANTS

Code:

P - Perennial
NG - No Germination
A - Annual

B - Bunch
S - Sod
V - Vine

1 - Excellent
3 - Good
5 - Fair
7 - Poor

9 - Very Weak
10 - Winter Kill

Species
PI or MS
:Other No.:No. :Planted: Type :Vigor :Prod.:Injury: Plant
Date Growth Seed. Leaf Seed Winter Matu- Plant
Date Type Vigor Prod. Injury: Plant

<i>Festuca elatior</i>	270399	2411	9-26-65	PB	3	3	5	1	June	3'
" sp.	NC 60-8	896	9-24-62	PB	3	3	1	1	"	4 1/3'
" "	NC 60-4	897	"	PB	3	3	3	1	"	3 1/2'
" "		3150	10-30-69	NG						
<i>Glycine ussuriensis</i>	163453	128	5-69	AV	3	3	3	3	Sept.	Vine
<i>Helianthus maximiliani</i>	PMT 852	2210	5-11-66	PB	3	3	3	3	Nov.	7'
" "	PMT 853	2211	"	PB	3	3	3	3	"	7'
<i>Hemarthria altissima</i>	299993	2916	5-13-68	PB	3	3	1	9	Aug.	4' run
" "	299039	2917	"	PB	3	3	8	9	"	5'
" "	299994	2918	"	PB	3	3	1	9	"	4'
" "	299995	2919	"	PB	3	3	5	9	"	8'
<i>Hemoracallis kwanso</i>	F 3147	2586	4-5-67	PB	3	3	9	9	"	2'
" sp.		2164	9-17-65	PB	3	3	3	9	"	4'
" "		2165	"	PB	3	3	3	9	"	4'
" "	AM 1281	2177	10-11-65	PB	3	3	3	9	"	4'
" "	AM 1289	2178	"	PB	3	3	3	9	"	4 1/2'
" "		2338	3-4-66	PB	3	3	3	9	"	4 1/2'
" "		2339	"	PB	3	3	3	9	"	4 1/2'
" "	AM 1321	2438	"	PB	3	3	3	9	July	4 1/2'
" "	AM 1580	2439	"	PB	3	3	3	9	"	4 1/2'
" "	AM 1999	2562	3-6-67	PB	3	3	5	9	"	3'
" "	AM 2007	2007	3-8-67	PB	3	3	5	9	"	3'
<i>Indigofera leptosepala</i>	PMT 1051	2679	5-24-68	PB	3	3	7	9	Aug.	18"
<i>Iris albispirtus</i>	F 3808	2357	4-20-66	PB	3	3	3	9	July	2 1/2'
<i>Iris sp.,</i>		2234	1-12-66	PB	3	3	7	9	"	2'
<i>Iris sp.,</i>		2235	"	PB	3	3	5	9	"	2'
" "		2236	"	PB	3	3	7	0	"	2'
<i>Kochia brevifolia</i>	321389	3066	5-15-69	NG						
<i>Kochia</i> "	330672	3067	"	A Herb	5	5	7	9		2 1/2'
" georgei	330673	3068	"	Died						
" indica	330674	3069	"	A Herb	3	3	3	5	Oct-Nov.	6'
" prostrata	330675	3070	"	Died						
" "	330708	3071	"	Died						

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Species	PI or	MS	Date	Growth	Seed.	Leaf	Seed	Winter	Matu-	Plant
Leersia oryzoides	BN 10506	2637	5-16-67	PB	5	5	7	1	Sept.	1 1/2'
Lepedeza cuneata	246769	119	4-12-65	PB	3	3	3	1	Oct.	Prostrate
"	BN 4666	279	"	PB	3	3	3	1	"	"
"	310409	2534	5-18-67	PB	3	3	5	1	Nov.	Semi-pros.
"	NC Syn.# 2 2584	2535	"	PB	5	5	5	1	"	Prostrate
"	AM 2054	2585	"	PB	3	3	3	1	Oct.	2'
"	246770	280	"	PB	3	3	5	1	Nov.	14"
intermixta	90664	1643	5-11-67	PB	3	3	3	1	Oct.	Very pros.
japonica	VA 70	1850	3-17-64	PB	3	3	3	1	Oct-Nov.	3-4'
"	AM 816	2503	2-2-65	PB	3	3	3	1	Sept.	3-4'
"	BN 6448-66	2536	3-8-68	PB	3	3	5	1	Aug.	4'
"	BN 2230	2537	5-18-67	PB	3	3	7	1	Aug.	2'
"	246771	282	"	PB	3	3	7	1	Oct.	3'
maximowiczii	NC 63-8	230	5-13-63	PB	3	3	7	1	Nov.	1'
pilosa	NC 64-3	1609	5-13-63	PB	1	1	5	1	Oct-Nov.	Pros.
procumbens	297385	2352	4-17-64	PB	9	9	3	1	Oct.	Semi-pros.
"	218004	126	"	PB	9	9	3	1	"	Prostrate
"	BN 10762	2577	5-11-67	PB	1	1	3	1	"	3'
"	BN 10762	2588	5-28-68	PB	5	5	3	1	"	Prostrate
"	BN 10762	2578	5-2-68	PB	3	3	3	1	"	18"
"	BN 10762	2578	3-14-67	PB	3	3	3	1	"	12"
"	BN 10762	2578	5-67	PB	3	3	7	1	"	12"
"	BN 10762	2578	3-14-67	PB	3	3	7	1	"	12
"	BN 10762	2158	7-1-65	PB	5	5	9	1	Sept.	6'
"	BN 10762	2159	"	PB	3	3	3	1	"	6'
"	BN 10762	2191	5-11-66	PB	3	3	5	1	Sept.	3'
"	BN 10762	380	4-19-66	PB	3	3	3	1	"	5'
"	BN 10762	2726	5-24-68	PB	3	3	5	1	Aug.	5'
"	BN 10762	1737	5-22-64	PB	3	3	5	1	"	3'
"	BN 10762	2201	5-11-66	PB	5	5	5	1	Sept.	3'
"	BN 10762	2212	"	PB	3	3	3	1	July	2-3'
"	BN 10762	1838	5-3-65	PB	3	3	3	1	June	2 1/2'
"	BN 10762	2543	5-11-67	PB	5	5	3	1	Aug.	14"
"	BN 10762	2846	5-24-68	AB	3	3	5	10	Sept.	4'

Other No.: No. :Planted: Type :Vigor:Prod.:Injury:ity :Height

Leersia oryzoides

Lepedeza cuneata

"

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intermixta

japonica

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maximowiczii

pilosa

procumbens

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sericea

serpens

virgata

Liriope graminifolia

" muscari v. variegata

" sp.,

Miscanthus sinensis

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Panicum amarulum

antidotale

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clandestinum

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coloratum

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"

cymbiforme

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GRASSES, LEGUMES, AND HERBACEOUS PLANTS

4 Code:

A - Annual

P - Perennial

NG - No Germination

1 - Excellent

3 - Good

5 - Fair

7 - Poor

9 -

10 - Winter Kill

Species : PI or MS : Other No.:No. :Planted: Type :Vigor:Prod.:Prod.:Injury:riety :Height

Panicum hemitonon		NC 64-4	525	5-10-62	PB	3	3	9	1	44"
"			2138	3-28-68	PB	3	3	9	1	3'
"			2139	"	PB	3	3	9	1	30"
"			2390	3-28-68	PB	3	3	9	1	26"
"			2449	"	PB	3	3	9	1	1'
"			2589	4-19-67	PB	3	3	9	1	3'
"			2642	7-10-67	PB	3	3	9	1	20"
"		AM 1585	2908	5-10-68	PB	3	3	9	1	30"
"		AM 1684	2909	5-13-68	PB	3	3	3	1	Oct
"		238346	2847	5-31-68	AB	1	1	3	10	Sept.
"		AM 7	2582	5-11-67	AB	3	3	3	10	Aug.
"		300058	2727	5-24-68	PB	5	3	5	1	Sept.
"		145794	2874	"	PB	5	3	5	1	"
"		206371	2876	"	PB	5	3	5	1	"
"		F 639	358	5	69	AB	3	5	1	Oct.
"		F 686	17	5	69	PB	3	3	1	"
"		F 687	18	4	- 65	PB	3	3	1	Sept.
"		AM 314	155	4	- 65	PB	3	3	1	Aug.
"		PMK 160	445	4-15-65	PB	3	3	3	1	Sept.
Pappophorum sp.,		331155	2998	5-15-69	B	5	5	5	2 1/2	Aug.
Paspalum alcalinum		337556	2999	"	NG	5	5	3	1	July
"		276242	1985	5-5-65	PS	5	5	3	1	Aug.
"		303985	3079	5-15-69	NG	9	5	3	1	"
"		276249	905	"	Died	5	3	3	1	Aug.
"		276248	904	"	PS	5	5	3	1	"
"		202044	906	"	PS	5	5	3	1	"
"		284171	999	"	NG	5	5	3	1	"
"		209983	1000	"	PS	5	5	3	1	Aug.
"		283020	1001	"	PS	5	5	3	1	"
"		304003	3080	"	PS	1	1	3	1	"
"		304004	3081	"	PS	1	1	3	1	"
"		310128	3082	"	PS	5	5	7	1	Sept.
"		310129	3083	"	PS	5	5	3	1	Aug.

† Code:

A - Annual

P - Perennial

NG - No Germination

GRASSES, LEGUMES, AND HERBACEOUS PLANTS

B - Bunch

S - Sod

V - Vine

1 - Excellent

3 - Good

5 - Fair

7 - Poor

9 - Very Weak

10 - Winter Kill

Species	PI or MS	Date	Growth	Seed.	Leaf	Seed	Winter	Matu-	Plant
	:Other	MS	No.	:Planted:	Type:	Vigor:	Prod.:	Injury:	Height

Paspalum plicatulum

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331157

BN 339

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Pennisetum alopecuroides

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GRASSES, LEGUMES, AND HERBACEOUS PLANTS

Code:

A - Annual
P - Perennial
N G - No Germination

GRASSES, LEGUMES, AND HERBACEOUS PLANTS

1 - Excellent
3 - Good

5 - Fair
7 - Poor

9 - Very Weak
10 - Winter Kill

PI or MS

Date
Growth Seed. Leaf Seed Winter Matu- Plant

:Other No.:No. :Planted: Type :Vigor:Prod.:Injury:Rity :Height

Species

Pennisetum sp.,

Tex.ARS # 1043

"	"	# 1047	2829	5-22-68	S	3	5	10	Aug.	5'
"	"	# 1061	2830	"	S	3	5	10	"	4 1/2'
"	"	# 1062	2831	"	S	3	3	10	"	4 1/2'
"	"	# 1077	2832	"	S	3	5	10	"	5'
"	"	# 1835	2833	"	S	5	3	10	"	3'
"	"	# 6721	2834	"	S	3	5	10	"	4 1/2'
"	"	# 67122	2835	"	S	3	5	10	"	5'
"	"	# 101011A	2836	"	S	3	5	10	"	5'
"	"	# 67147A	2837	"	S	1	5	10	"	5'
"	"	"	2838	"	S	3	3	10	"	3 1/2'
"	"	"	2839	"	S	3	5	10	"	4 1/2'
"	"	304751	3122	5-5-69	S	1	7	10	Sept.	6 1/2'
"	spicatum	337999	2978	5-15-69	B	1	7	10	"	6'
"	"	338000	2979	"	B	1	7	10	"	7'
Phalaris aquatica x arund.	BN 12103	1897	11-9-65	PS	3	3	9	1	July	18"
"	BN 12104	1898	"	PS	3	3	5	1	"	18"
"	F 1208	540	10-29-63	PS	1	1	7	1	"	2 1/2'
Phlox adsurgens	2641	2641	5-24-68	PS	5	1	3	1	Sept.	1 1/2'
Poa glaucantha	2373	2373	5-26-66	PB	3	3	1	1	Nov.	18"
Psoralea adscendens	2119	2119	10-22-65	PS	3	3	1	1	July	18"
" bituminosa	238351	2804	5-23-68	P	5	3	3	3	Aug.	3'
"	283969	780	5-9-63	PB	3	3	3	3	"	16"
"	238352	2880	5-23-68	B	3	3	1	10	Sept.	2 1/2'
"	246744	2882	"	B	3	3	5	10	"	2 1/2'
"	287920	2886	"	B	3	3	5	10	"	2'
"	287921	2887	"	B	3	3	5	10	"	1'
"	302954	2889	"	B	5	3	5	10	"	3 1/2'
cinerea	238353	2805	"	B	5	5	5	10	Aug.	3'
dentata	246745	2883	"	NG	5	5	5	10		
eriantha	255746	2885	"	B	5	5	5	10	Sept.	2'
"	287922	2888	"	PB	5	5	5	3	Aug.	10"

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GRASSES, LEGUMES, AND HERBACEOUS PLANTS

Code:

A - Annual
P - Perennial
NG - No Germinations

1 - Excellent 5 - Fair 9 - Very Weak B - Bunch
3 - Good 7 - Poor 10 - Winter Kill S - Sod
PI or MS Date Growth Seed Leaf Seed Winter Matu-Plant V - Vine
:Other No.:No. :Planted: Type :Vigor :Prod.:Injury:riety:Height

Species	PI or MS	Date	Growth	Seed	Leaf	Seed	Winter	Matu-Plant	V - Vine
Psoralea sp.,	1833 44	2803	5-23-68	B	5	5	3	10	Sept. 4 $\frac{1}{2}$
" tenax	246747	2884	"	PB	5	5	3	1	" 2 $\frac{1}{2}$
Pueraria sp.,	BN 18270	2680	5-24-68	PV	3	3	9	1	Prost
Rhynchosia minima	300109	2943	5-15-69	NG	5	7	5	10	Aug. 3 $\frac{1}{2}$
Setaria flabellata	316422	2732	5-23-68	B	5	7	3	10	" 1 $\frac{1}{2}$
" geniculata	208303	2899	"	B	5	7	5	5	" 3 $\frac{1}{2}$
" gerrardi	208303	2073	5-10-67	PB	3	7	5	5	" 3 $\frac{1}{2}$
" italica	230136	2081	5-26-66	PB	3	3	3	1	" 3 $\frac{1}{2}$
" macrostachya	217229	2082	"	PB	7	5	5	1	Jun-Jul. 2 $\frac{1}{2}$
" "	229129	2083	"	PB	5	5	3	1	" 2 $\frac{1}{2}$
" "	229131	2084	"	PB	5	5	3	1	" 2 $\frac{1}{2}$
" magna grisea	BN 17107	2734	5-23-68	B	5	5	3	10	Aug. 5 $\frac{1}{2}$
" neglecta	300110	2548	5-10-67	PB	3	3	5	3	" 2 $\frac{1}{2}$
" sphacelata	284477	2848	5-23-68	PB	3	3	3	7	" 4 $\frac{1}{2}$
" "	314859	2849	"	B	3	3	3	10	" 5 $\frac{1}{2}$
" "	314862	2850	"	B	3	3	5	10	" 4 $\frac{1}{2}$
" "	314867	2851	"	B	5	5	5	10	" 3 $\frac{1}{2}$
" "	314868	2852	"	B	3	3	3	10	" 5 $\frac{1}{2}$
" "	314869	2853	"	B	1	1	3	10	" 4 $\frac{1}{2}$
" "	314871	2854	"	B	3	3	3	10	" 4 $\frac{1}{2}$
" "	314872	2855	"	B	3	3	3	10	" 4 $\frac{1}{2}$
" "	314874	2856	"	B	1	1	3	7	" 4 $\frac{1}{2}$
" "	314875	2857	"	PB	3	3	3	7	" 4 $\frac{1}{2}$
" "	314877	2858	"	PB	1	1	3	10	" 4 $\frac{1}{2}$
" "	314878	2859	"	PB	3	3	3	5	" 4 $\frac{1}{2}$
" "	280125	2890	"	PB	3	3	1	3	" 4 $\frac{1}{2}$
" "	296007	2891	"	B	3	3	1	10	" 5 $\frac{1}{2}$
" "	296008	2892	"	B	3	3	3	10	" 4 $\frac{1}{2}$
" "	314870	2893	"	B	5	5	5	10	" 4 $\frac{1}{2}$
" "	314881	2894	"	PB	5	5	5	7	" 4 $\frac{1}{2}$
" "	314882	2895	"	PB	7	7	5	1	" 4 $\frac{1}{2}$

GRASSES, LEGUMES, AND HERBACEOUS PLANTS

Code:

A - Annual
P - Perennial
NG - No Germination

1 - Excellent
3 - Good

5 - Fair
7 - Poor

9 - Very Weak
10 - Winter Kill

B - Bunch
S - Sod
V - Vine

Species	PI or Other No.:	MS No.:	Date Planted:	Growth Type:	Seed. Vigor:	Leaf Prod.:	Seed. Prod.:	Winter Injury:	Matu- rity:	Plant Height
Setaria sphacelata	3114883	2896	5-23-68	B	5	5	3	10	Aug.	5'
"	3114884	2897	"	B	5	5	3	10	"	4'
"	316406	2898	"	B	7	7	5	10	"	3½'
Sorghastrum nutans		145	4-16-68	PB	3	3	3	1	Sept	4½'
"		228	"	PB	3	3	3	1	Oct	6'
"		1746	5-26-64	PB	3	3	3	1	"	6½'
"		1747	5-27-64	PB	3	3	3	1	"	4½'
"		1748	"	PB	3	3	3	1	"	6'
"		2227	5-11-66	PB	5	5	5	1	"	3'
"		2229	"	PB	5	5	5	1	"	3'
"	AM 58	2462	5-18-67	PB	7	7	3	1	"	3'
"	AM 763	2463	"	PB	3	3	3	1	"	4'
"	AM 764	2464	"	PB	3	3	5	1	"	2'
"	AM 765	2465	"	PB	5	5	3	1	"	4'
"	AM 766	2466	"	PB	5	5	3	1	"	3'
"	AM 773	2467	"	PB	3	3	3	1	"	4'
"	AM 1323	2468	"	PB	3	3	3	1	Nov.	4'
"	AM 1386	2469	"	PB	5	5	3	1	"	2'
"	AM 1387	2471	"	PB	3	3	3	1	Oct	3'
"	AM 1388	2472	"	PB	5	5	3	1	"	4'
"	AM 1760	2473	"	PB	3	3	3	1	"	4'
"		2477	"	PB	3	3	3	1	"	4'
"		2478	"	PB	5	5	3	1	"	4'
"		2479	"	PB	5	5	5	1	Nov.	4'
"		2482	"	PB	3	3	3	1	Oct	3'
"		2558	"	PB	7	7	5	1	"	4'
Spartina patens	F 3806	2360	4-20-66	P	3	3	9	1	Sept.	3'
" pectinata		2174	11-10-65	P	3	3	7	1	Aug.	5'
"		2203	"	P	5	5	7	1	"	4'
Sporobolus airoides	PMT 155	2218	5-11-66	PB	3	3	3	1	Sept.	2½'
"	PMT 207	2219	"	PB	5	5	3	1	July	2½'

Code: Winter Injury -

1 - 0.. 20%
3 - 21.. 40%

SHRUBS AND TREES

5 - 41.. 60%
7 - 61.. 80%

9 - 81.. 100%

Species	PI or :Other	No:No.	Date :Planted:	Deci- dious:	Ever- green:	Insect Injury	100%	NG - No Winter Seed Mat-Plant	Germination :Height	Plant :Width
Alnus glutinosa	Mi 823	2583	3-16-67	x		1		1	8'	4'
" mayali	317356	2902	4-29-68	x		1		1		
" rugosa		2936	1-15-69	x		1				
Ampelopsis brevipeduncul.	NC 67-14	2665	3-18-68	x		1		1	4'	4-5'
Berberis julianae	BN 15905	2117	3-8-65	x		1		1		
" mentoriensis		2687	3-29-67	x		1		1		
Calliocalpa americana		2933	11-26-68	x		1		1		
Castanea alnifolia	4	2167	11-19-60	x		1		1	15'	10'
" dentata		19	9-28-65	x		1		1	3'	1'
" . molissima	BN 8299	20	1-2-61	x		1		1	22'	18'
" "	R8-T15	21	"	x		1		1	25'	15'
" "	R6-T16	22	"	x		1		1	25'	16'
" "	R5-T9	23	"	x		1		1	22'	16'
" "	R8-T16	24	"	x		1		1	25'	18'
" "	R3-T21	25	"	x		1		1	25'	17'
" "	S 876	2681	"	x		1		1	25'	18'
" pumila	AM 120	1	1-10-68	x		1		1	2'	2'
" sp.,		157	10-28-60	x		1		1	22'	15'
" "	58602	2428	3-29-61	x		1		1	20'	12'
" "	M1 5604	2429	10-5-66	x		1		1	3'	1'
" "	M1 56 04	2430	"	x		1		1	2 1/2'	1'
" "	M1 5603	2949	"	x		1		1	3'	1'
" hybrid	244348		1--69	NG						
Castanopsis chrysophylla		2572	3-13-67	x		1		1	3'	2'
Cornus florida		2573	"	x		1		1	1'	6'
" mas	BN 14626	2574	"	x		1		1	1 1/2'	1'
" officinalis	BN 14627	2138	2-13-61	x		1		1	5'	5'
Corylus, americana		337	10-19-61	x		1		1	4'	4'
" "		2936A	1 - 69	x		1		1		
Cotoneaster racemiflora	297597	2202	11-24-65	x		1		1	2'	1 1/2'
Crataegus sp.,	AM 2460	2460	12-1-66	x		1		1	2 1/2'	1 1/2'
" "		2671	1-15-69	NG						

SHRUBS AND TREES

80%	19	2
60%	17	5

9 - 87 .. 100%

NG - No Germination
GD - Germination & Died

Species	PI or :Other No.:	MS No.:	Date :Planted:	Deci- dious:	Ever- green:	Insect Injury	Winter Seed Ma- turity	Plant Height:	Width
Gunninghamia lanceolata		1848	11-25-64					1 1/2'	1'
Elaeagnus multiflora		2231	1-11-66	x					
" pungens	NC 69-6	3047	4- 69				GD		
" umbellata		368	2-2-62	x					
" "	BN 11373	427	3-19-62	x			Sept.	11'	11'
" "	BN 11374	428	"	x			Aug.	14'	14'
" "	BN 11385	429	"	x			Aug.	13'	13'
" "	BN 11387	430	"	x			Sept.	13'	13'
" "	BN 11426	431	"	x			Sept.	10'	10'
" "	BN 12090	432	"	x			"	13'	13'
" "	BN 13459-62	1722	"	x			Aug.	15'	15'
" "	BN 13460	1723	3-16-64	x			"	8'	8'
" "	NY 2409	2246	2-9-66	x			Sept.	9'	9'
Euonymus fortunei	275073	2379	6-23-66		x		Aug.	7'	7'
" radicans minima	AM 1880	2490	1-30-67	x				1'	2 1/2'
Ilex cassine	254592	3009	3-25-69	x				2'	1'
" montana var. macrocarpa	316703	3010	"	x				1'	6"
" sp.,		2450	11-18-66	x				1'	6"
" vomitoria		2946	1-3-69	NG				1 1/2'	1'
Juglans nigra	NC 68-8	2937	11- 68	x					
" "		2938	"	x				3'	1'
Hypericum galloides		2351	4-6-66	x				3'	1'
Leucaena retusa	AM 1601	2682	3-15-68	x			Sept.	2 1/2'	2'
Lonicera maackii		2205	11-24-65	x				1'	6"
" "		2461	12-22-66	x				3'	2'
" podocarpa	BN 8318	2161	3-6-68	x			Oct.	3 1/2'	2 1/2'
" sp.,		2166	9-23-65	x				2 1/2'	1 1/2'
Malus baccata	99907	151	1961	x			Nov.	3'	2'
" hupehensis	122586	150	3-6-68	x			"	16'	12'
" sp.,		385	2-9-62	x				25'	12'
" spectabilis	AM 259	365	3-6-68	x			Oct-Nov.	25'	12'
Metasequoia glyptostroboides	286608	2580	3-13-67	x			Aug.	9'	7'

Code: Winter Injury
1 - 0.. 20%
3 - 21.. 40%

SHRUBS AND TREES

5 - 41...60% 9 - 81...100%

7 - 61...80%

NG - No Germination

GD - Germinated and Died

Species	PI or :Other No.:	No.:	MS	Date	Deci- :Planted:dious:	Ever- green:	Insect Injury:	Winter Injury:	turity	Height:	Width
Pachistima canbyi	BN 13500	2580		3-13-67		x	1	1	1'	6"	
Photinia villosa sinica	ML 5852	2426		11-18-66	x		1	1	4'	3'	
Phyllostachys bambusoides		2217		12-13-65	Died		1	1			
" bissetii	143540	499		4-9-62		x	1	1	20'	5'	
" meyerii	116768	498		4-9-62		x	1	1	20'	5'	
" "	AM 315	500		"		x	1	1	30'	6'	
Pinus koraiensis	316977	2903		4-29-68		x	1	1	1'	6"	
" "	317255	2904		"		x	1	1	1'	6"	
" "	317256	2905		"		x	1	1	1'	6"	
" thunbergi		1873		2-4-65		x	3	1	4'	3'	
Pistacia atlantica	AM 1884	2500		2-2-67	x		1	1	2'	1'	
" "	276702	2501		"	x		1	1	2'	1'	
" "	276703	2502		"	x		1	1	2'	1'	
" chinensis	21970	2182		12-17-65	x		1	1	3'	2'	
" terebinthus	246342	2499		2-2-67	Died		1	1	2'	1'	
Pittosporum tobira	NC 67-23	2678		2-20-68		x	1	1	1'	1'	
Prunus caroliniana	AM 2031	2684		1-10-68		x	1	1	2'	1'	
" "		2693		3-5-68		x	1	1	3'	2'	
" "		2947		1-15-69		x	1	1	12"	6"	
Pyracantha coccinea	AM 170	366		2-9-62		x	1	1	9'	7'	
" "	203240	367		"		x	1	1	9'	7'	
" sp.,		2206		11-24-65		x	1	1	3'	3'	
" "		2670		3-5-68		x	1	1	4'	4'	
" coccinea	AM 264	819		1-30-63		x	1	1	6'	4'	
Quercus acutissima	142294	2		10-22-65	x		1	1	12'	8'	
" "		3		10-5-66	x		1	1	4'	5'	
" arkansana		335		10-17-62	x		1	1	10'	6'	
" imbricaria		362		2-1-62	x		1	1	5'	5'	
" montanus	AM 475	1648		2-13-64	x		1	1	7'	7'	
" myrsinaefolia	74222	6		12-21-66		x	1	1	4'	3'	

SHRUBS AND TREES

Code: Winter Injury
1 - 0 ... 20%
3 - 21 .. 40%

9 - 81 .. 100%

5-17-60%
7-19-80%

9 - 81 .. 100%

Species	PI or :Other	MS No.:	Date Planted:	Deci- dious:	Ever- green:	Insect Injury:	Winter Injury:	Seed Ma- turity	Plant Height:	Plant Width
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Quercus myrsinaefolia	74227	2433	1-11-66	x	1	1	Oct	4'	3'
pumila	AM 305	370	2-20-68	x	1	1	"	3 1/2'	4'
"	AM 306	371	"	x	1	1	"	3'	3'
"	AM 262	372	"	x	1	1	"	2'	2 1/2'
"	AM 171	373	2-7-66	x	1	1	"	2'	2'
"	SC 57-30	1851	1-12-65	x	1	1	"	2 1/2'	2 1/2'
"	SC 57-31	1852	2-7-66	x	1	1	"	2 1/2'	2 1/2'
"	SC 57-32	1853	"	x	1	1	"	1 1/2'	1 1/2'
"	SC 57-33	1854	"	x	1	1	"	1 1/2'	1 1/2'
"	SC 57-34	1855	"	x	1	1	"	1'	1'
"	SC 57-35	1856	"	x	1	1	"	1 1/2'	1 1/2'
"	8	1857	"	x	1	1	"	1 1/2'	1 1/2'
Collection #	AM 310	2240	"	x	1	1	"	2'	2 1/2'
"	AM 171	2685	3-15-68	x	1	1	"	1 1/2'	1 1/2'
"	AM 1552	2686	"	x	1	1	"	1'	1'
"	NC 68-20	2939	11-4-68	x	1	1	"	1'	1'
virginiana	NC 68-21	2940	"	x	1	1	"	1'	1'
"	NY 3018	2488	1-23-67	x	1	1	"	5'	3'
Robinia hispida	PI 257022	2906	11-26-68	x	1	1	"	5'	5'
Rosa eglanteria	AM 1553	2459	12-1-66	x	1	1	"	2'	2'
Salix acutifolia	814	814	2-18-63	x	1	1	"	2 1/2'	2 1/2'
" alba	BN 1369263	852	3-27-63	x	1	1	"	6'	6'
" americana androgyna	BN 14863-64	1955	2-13-65	x	1	1	"	3'	3'
" aurita	265662	841	3-11-63	x	1	1	"	8'	6'
" bicolor	BN 14864	1956	2-13-65	x	1	1	"	5'	5'
" candida	BN 13688	860	2-18-63	x	1	1	"	3'	3'
" cinerea	BN 12362	1959	3-27-63	x	1	1	"	6'	6'
"	1963	1963	2-13-65	x	1	1	"	5'	5'
" cottetii	BN 13604	815	"	x	1	1	"	3'	3'
" gilgiana	BN 13672	870	2-18-63	x	1	1	"	9'	8'
" glaucophylloides	BN 136773	876	3-27-63	x	1	1	"	2 1/2'	2 1/2'
"	BN 13666-63	881	"	x	1	1	"	3'	3'
"			"	x	1	1	"	4'	4'

Code: Winter Injury
1 - 0 .. 20%
3 - 21.. 40%

SHRUBS AND TREES

5 -	41...60%	9 - 81 .. 100%
7 -	61 .. 80%	NG - No Germination

GD-Germinated & Died

Ed Ma-Plant. Plant.

ity :Height:Width

Species	Other No.	No.	Planted	diours:green:	Injury:	turity	Height:
Salix gracilis textoris	BN 13662	878	3-27-63	x	1	1	5'
" hastata	BN 13679	863	"	x	1	1	4'
" incana	BN 13697	854	"	x	1	1	4'
" interior	BN 13671	880	"	x	1	1	8'
" irrorata		817	"	x	1	1	2'
" "	BN 13684	847	"	x	1	1	4'
" medemii	BN 13663	866	"	x	1	1	3'
" muscina	BN 14878	1969	2-13-65	x	1	1	7'
" oxica	BN 13667	875	3-27-63	x	1	1	7'
" purpurea	BN 13696	850	"	x	1	1	6'
" "	BN 13690	858	"	x	1	1	6'
" "	BN 13680	859	"	x	1	1	10'
" "	BN 13677	877	"	x	1	1	3 1/2'
" "	BN 13669	882	"	x	1	1	5'
" "	266477	1972	2-13-65	x	1	1	7'
" "	NY 2936	505	3-19-62	x	1	1	3'
" "	Mich 388	820	3-26-63	x	1	1	3'
" "	BN 13675	868	3-27-63	x	1	1	1 1/2'
" lambertiana	Mich 389	822	3-26-63	x	1	1	6'
" purpurea nana	BN 8950	504	4-17-62	x	1	1	1'
" "	BN 13560	899	4-1-63	x	1	1	2'
" repens v. rosmarin.	265667	843	3-11-63	x	1	1	5'
" smithiana	BN 13693	849	3-27-63	x	1	1	4'
" seringeana	BN 13686	861	"	x	1	1	7'
" syrticola	BN 14862	1954	2-13-65	x	1	1	3 1/2'
" tominii	BN 13681-63	848	3-27-63	x	1	1	3'
" viminalis	BN 13683	856	"	x	1	1	3'
" x chrysostala	265663	842	3-11-63	x	1	1	7'
" x molissima	BN 13691	886	3-27-63	x	1	1	5'
" x multinervis	BN 13559	898	4-1-63	x	1	1	1 1/2'
Sasa pygmaea	52674	838	3-7-63		1	1	2 1/2'
" "		839	"		1	1	1'
Symphoricarpos sp.		2432	11-17-66	x	1	1	3'
Thea sinensis	AM 1878	2491	1-30-67	x	1	1	1'
Unidentified shrub		2935	1968	x	1	1	1'

PART II -

Progress Reports on Projects

Phalaris arundinacea, reed canarygrass, MS 540, was planted in a row 35 feet long on a continuous grade from 6 inches above water to 6 inches below water. Observations concerning water tolerance and seed production were made. The 6 inches of water did not retard growth appreciably; but few, if any, seed were produced anywhere along the row.

Hemoracallis sp., daylily. Eleven accessions were compared for vigor, spread, beauty, ground cover, etc. Four accessions do not vary considerably, but MS 2165, which is being increased, looks best. It makes a dense ground cover, spreads well by tubers, and has attractive blossoms.

Lespedeza spp. Four accessions of Lespedeza were compared for value as plants to vegetate abandoned mine spoils, stabilize critical areas, and control erosion on cut slopes of roadbanks and similar areas. These four plants are:

Lespedeza cuneata, Nasu 10, sericea, MS 119
" " common sericea, MS 2146
" intermixta, MS 280
" virgata, spreading lespedeza, MS 126

Lespedeza virgata, MS 126, has looked best from an overall standpoint of vigor, spread, ground cover, growth characteristic, seed production, etc.

Tests have been under way for 20 months to determine the best date and depth to plant five accessions of plants: Paspalum nicorae, MS 906; Echinochloa holubii, MS 924; Lespedeza virgata, MS 126; Panicum virgatum, MS 155; and Paspalum notatum, MS 131. The plantings were made at 0", 1/4", 1/2", 1" and 1 1/2" depths each month and when complete, will cover a three year period. Results gained to date are inconclusive; but, generalities for each are shown as follows:

Echinochloa holubii, Limpopograss, MS 924. Germination was better at the 1/4", 1/2" and 1" depths than at plantings either deeper or more shallow. Survival at all depths was rather constant.

Paspalum nicorae, Amcorae brunswickgrass, MS 906. Germination does not differ greatly between any of the five depths. Survival one year after germination is much better at the 1" or 1 1/2" planting depth.

Progress Reports on Projects - continued

Lespedeza virgata, spreading lespedeza, MS 126. Germination at the 0", 1/4" and 1/2" depths has been considerably better than at deeper plantings. Survival has been rather constant at all depths.

Panicum virgatum, Pangburn switchgrass, MS 155. Germination has been best at depths of 1/2", 3/4" and 1". Survival at the 1 1/2" depth has not been so good as at the more shallow depths.

Paspalum notatum, Wilmington bahiagrass, MS 131. Germination at the 0" depth has been inferior to that of deeper plantings. Survival at all depths has been quite constant.

Spartina patens, MS 2360, was planted vegetatively in rows grading from 6" above water to a 6" water depth to check for seed production. Seed production was poor the entire row lengths.

Fescue. Eight accessions of fescue were planted in 5 x 20 ft. plots in October, 1967, on Grenada silt loam soil. They are being compared for total forage production, sod forming ability, and summer growth. To date, there is very little visual difference in sod forming ability and only a small amount of summer growth from any of the eight. The results of a May 19, 1969 clipping are shown below:

Festuca arundinacea:

<u>Variety</u>	<u>MS No.</u>	<u>Pounds</u>	
		<u>Green Weight</u>	<u>Air Dry Weight</u>
Ky 31	1601	57	16
Artren	539	51	15 1/4
Goar	2656	43 3/4	15
Arflag	538	41	14
Alta	2658	41	13
Uruguay	2329	38	12
Fawn	2657	30 1/2	10 1/4
Kenwell	2659	29 1/2	9 1/2

Lespedeza japonica. Three accessions of Lespedeza japonica, MS 1643, MS 1850, and MS 2503 were clipped in May and August to determine their ability to withstand a clipping regime. These plants have not made good recovery after the second clipping and forage production appeared to be reduced considerably.

Progress Reports on Projects - continued

Four accessions of plants, Echinochloa holubii, Panicum hemitomon, Salix hastata, and Salix interior, were planted in a stream channel near Coffeerville in 1966 for testing as streambank erosion control plants. Listed are some observations as to the merits of each plant:

Echinochloa holubii, limpopograss, MS 924. This grass maintained a good stand and spread is fair, average 2 feet width. A fair amount of silt has built up in plants but some washing is occurring between plants and bottom of slope.

Panicum hemitomon, Maidencane, MS 2138. Plants maintained a good stand and spread well, average 4 - 6 feet. There is a good build-up of silt in plants. The maidencane is making some spread up slope.

Salix hastata, Halberd willow, MS 863. Plants maintained a good stand and there is a very good build-up of silt within the stand. Soil sloughing from top of slope catches behind plants and grasses, indiagrass, little bluestem, bermudagrass, etc., are invading on this area.

Salix interior, Sandbar willow, MS 880. Stand is good but not as dense as that of Halberd willow and plants are taller. This plant is rhizomatous and spreads well. Soil Cloughing from top of slope is catching behind plants and is being invaded by grasses and broadleaf plants.

Pennisetum spp. A grass adapted to the calcareous areas of East Mississippi and West Alabama, capable of producing good quantities of forage is needed. In an attempt to find such a grass, 23 accessions of buffelgrass, Pennisetum spp., obtained from Dr. Bashaw at Texas A & M University, were planted in rod rows in 1968. These grasses all winter killed at Coffeerville during the winter of 1968-69. This was a mild winter and some of these grasses were expected to withstand the winter here. Perhaps a combination of cold and soil moisture in excess of that from their usual range caused these plants to die.

Echinochloa: A test was made to find a plant capable of producing good quantities of waterfowl food when planted as late as mid-July. Four accessions of Echinochloa were planted July 23, 1969 in triplicate rows for comparison of yields. Due to shattering and bird use, exact yields were not determined but the plants are listed in order from best to least yields from observation:

Progress Reports on Projects - continued

Echinochloa

MS 181 -	<u>Echinochloa</u>	<u>frumentacea</u>
MS 188 -	"	crusgalli
MS 182 -	"	"
MS 187 -	"	"

None of the plants had yields comparable to that which can be obtained with MS 181, Echinochloa frumentacea, when planted in early June. All plants did mature seed, however.

PART II - Plant and Seed Increases

Species	MS No.	PI or Other No.	Amount Planned Seed(lbs):Plants(ea)	Area in Production:Seed(lbs):Plants(ea)	Amount Harvested	Purpose of Increase
<u>Ampelopsis brevipedunculata</u> <u>Amur ampelopsis</u>	2665	NC 67-114	300	300' r.	77	(See App.A) 22, 5
<u>Arachis monticola</u> <u>Reseeding peanut</u>	528	263393	700		15	20, 12
<u>Calli-carpa americana</u> <u>Beautyberry</u>	2933		0	100' r.	50	22, 12
<u>Castanea alnifolia</u> <u>Trailing chinquapin</u>	4		0	200' r.	650	12
<u>Coreopsis lanceolata</u> <u>Lance coreopsis</u>	2378		2 oz.	1 rod row	2 oz.	22
<u>Cotoneaster racemiflora</u> <u>Redbead cotoneaster</u>	2936A	297597	0	100' r.	75	22
<u>Crataegus sp.</u> <u>Hawthorn</u>	2460	AM 2302	5,500	500' r.	0	12, 22
<u>Cynodon dactylon</u> <u>Tifdwarf bermudagrass (Reg.)</u>	2371	AM 1283	5,000 sq.ft.	5000 sq.ft.	50 sq.ft.	10, 11, 4
<u>Cynodon dactylon</u> <u>Tifdwarf bermudagrass, (Non- Reg)</u>	2136	AM 1283	200 sq.ft.	200 sq.ft.	0	10, 11, 4
<u>Cynodon dactylon</u> <u>Tufcote bermudagrass (Reg.)</u>	2372	BN 4198	5000 "	5000 "	1947 sq.ft.	10, 11, 4
<u>Cynodon dactylon</u> <u>Tufcote bermudagrass (non-reg.)</u>	527	BN 4198	900 sq.ft.	900 "	180 "	10, 11, 4
<u>Echinochloa frumentacea</u> <u>Chiwapa japanese millet</u>	181	BN 8963-57	1600		3,850	12

Part II - Plant and Seed Increases - continued

Species	MS No.	PI or Other No.	Amount Planned Seed(lbs):Plants(ea)	Area in Production:Seed(lbs):Plants(ea)	Amount Harvested Purpose
<u>Echinochloa holubii</u> Limpograss	924	207924	200	1/2 ac.	190 5, 7, 21
<u>Elaeagnus umbellata</u> Autumnolive	432	BN 12090	500	100' r.	325 3, 12, 22
<u>Elaeagnus umbellata</u> Autumnolive	2941		6000	400' r.	180 3, 12, 22
<u>Eragrostis curvula</u> Weeping lovegrass	268	234558	2000	16 ac.	150 1, 2, 4, 6
<u>Eragrostis robusta</u> Big lovegrass	394	209-385	10	500' r.	5 oz. 1, 2, 4, 6
<u>Eragrostis robusta</u> Big lovegrass	443	234218	10	500' r.	4 oz. 1, 2, 4, 6
<u>Festuca arundinacea</u> Artren fescue	539	F 1079	30	1/10 ac.	15 19, 15
<u>Festuca arundinacea</u> Ky 31 fescue	1601		18,000	70 ac.	17,800 19, 15
<u>Glycine ussuriensis</u> Wild soybeans	128	163453	400	3 ac.	625 12
<u>Hemerocallis sp.</u> , Day lily	2165			1/2 ac.	7000 2,000 22, 6
<u>Ilex vomitoria</u> Youpon holly	2946			50' r.	200 0 22
<u>Juglans nigra</u> Black walnut	2937			300' r.	0 575 12

PART II - Plant and Seed Increases - continued

Species	MS No.	PI or Other No.:	Seed(lbs):Plants(ea):Production:Seed(lbs)Plants(ea):of Increase	Area in Amount Planned	Amount Harvested Purpose
<u>Juglans nigra</u> Black walnut	2938		0	300' r.	625 12 (See App.A)
<u>Lespedeza cuneata</u> Sericea	2146		14,000	60 ac.	4,200 1,3,4,6
<u>Lespedeza virgata</u> Spreading lespedeza	126	218004	300	2 ac.	550 1, 3, 4, 6
<u>Lonicera maackii</u> Amur honeysuckle	2161	BN 8318	300	400' r.	350 12, 22
<u>Malus hupehensis</u> Crabapple	150	122586	8500	400' r.	7600 12, 22
<u>Panicum hemitomon</u> Maidencane	2138	NC 64-4	111,000	1 ac.	23,000 5, 7
<u>Panicum virgatum</u> Wabasso switchgrass	17	F 686	2	100' r.	1/2 6, 16, 17
<u>Panicum virgatum</u> Stuart switchgrass	18	AM 181	2	100' r.	6 oz. 6, 16, 17
<u>Panicum virgatum</u> Pangburn switchgrass	155	BN 14668	300	3 ac.	320 6, 16, 17
<u>Panicum virgatum</u> Kanlow switchgrass	445	PMK 160	2	100' r.	1 oz. 6, 16, 17
<u>Panicum texanum</u> Texas millet	358	F 639	400	2 ac.	65 12

PART II - Plant and Seed Increases - continued

Species	MS No.	PI or Other No.	Amount Planned Seed (lbs):Plants (ea)	Area in Production:Seed (lbs):Plants (ea)	Amount Harvested Purpose of Increase
<u>Paspalum notatum</u> <u>Wilmington bahiagrass</u>	131	AM 1284	3000	20 ac.	470 4, 18, 14
<u>Phalaris arundinacea</u> <u>Reed canarygrass</u>	540	F 1208	1	300' r.	0 19
<u>Phyllostachys bissetti</u> <u>Bisset bamboo</u>	499	143540		q.s.	830 rh. 8, 11 49 pl.
<u>Phyllostachys meyerii</u> <u>Bamboo</u>	498	116768		q.s.	530 rh 8, 11 29 pl
<u>Phyllostachys meyerii</u> <u>Bamboo</u>	500	AM 315		q.s.	1020 rh. 8, 11 53 pl.
<u>Pistacia chinensis</u> <u>Chinese pistache</u>	2182	21970		300	700 22, 12
<u>Pittosporum tobira</u> <u>Tobira pittosporum</u>	2678	NC 67-23		50' r.	21* 22
<u>Prunus caroliniana</u> <u>Carolina laurelcherry</u>	2693			1500	625 22, 12
<u>Prunus caroliniana</u> <u>Carolina laurelcherry</u>	2947			100	200 22, 12
<u>Pyracantha sp.</u> <u>Firethorn</u>	2670			0	32* 22
<u>Pyracantha coccinea</u> <u>Scarlet firethorn</u>	366	AM 170		0	125* 22

* Carried over from previous year

PART II - Plant and Seed Increases - continued

Species	MS No.	PI or Other No.	Amount Planned :Seed(lbs):Plants(ea)	Area in Production:Seed(lbs):Plants(ea)	Amount Harvested :Plants(ea):of Increase	Purpose
<u>Quercus myrsinaefolia</u> Evergreen oak	6	74222	0	100' r.	51*	22
<u>Quercus pumila</u> Runner oak	370	AM 305	0	40' r.	16*	12
<u>Quercus pumila</u> Runner oak	371	AM 306	0	40' r.	3*	12
<u>Quercus pumila</u> Runner oak	372	AM 262	0	40' r.	26*	12
<u>Quercus virginiana</u> Live oak	2939	NC 68-20	0	75' r.	41*	22
<u>Quercus virginiana</u> Live oak	2940	NC 68-21	0	120' r.	125	22
<u>Robinia pseudocacia</u> Black locust	2906	257022	0	10' r.	9	1, 12, 3
<u>Salix glaucophylloides</u> Firm blueleaf willow	881	BN 13666-63	100	30' r.	100	5, 7
<u>Salix hastata</u> Halberd willow	863	BN 13679-63	12650	1/8 ac.	2560	5, 7
<u>Salix interior</u> Sandbar willow	880	BN 13671-63	11650	1/8 ac.	6800	5, 7
<u>Thunbergia triandra</u> Thunbergia	1870	276070	5#	400' r.	0	3, 4,

PART II - Plant and Seed Increases - continued

Species	MS :No.	PI or :Other No.	Amount Planned :Seed(lbs):Plants(ea)	Area in :Production:Seed(lbs):Plants(ea)	Amount Harvested :Plants(ea):Increase
<u>Tridens flava</u> <u>Purpletop triodia</u>	744		5	400' row	4, 6
<u>Trifolium nigrescens</u> <u>Ball clover</u>	989	206926	1000	10 ac.	6, 4
<u>Trifolium vesiculosum</u> <u>Meechee arrowleaf clover</u>	329	233782	2600	9 ac.	19, 20
<u>Vinca major</u> <u>Periwinkle</u>	2362			200 sq.ft.	22
<u>Zizaniopsis miliacea</u> <u>Giant outgrass</u>	949		2	100 sq.ft.	5, 7
<u>Mulching material</u> <u>(FP)</u>			350 Tons	175 ac.	158 Tons 1

PART II-

1.B - Production and Weed Control Notes

Simazine 80W was applied to several fields of perennial grasses at the rate of 2.4 pounds active ingredients per acre during February 1969. Control of crabgrass was very poor whereas in previous years this compound had given good control of this grass.

This crabgrass infestation, combined with periods of drought during the summer, appeared to be the cause of very low yields of Wilmington bahiagrass seed.

Annual grass infestations in fields seeded to bahiagrass are a major problem in preventing good establishment. Two herbicides were applied to a 1969 planted field of Wilmington bahiagrass at the Coffeerville Plant Materials Center. The two used were believed to have properties making them suitable for use on bahiagrass. The results from each follows:

Treflan: One and 1/2 pints of ingredients in 35 gallons of water was applied and incorporated just prior to seeding.

Germination of bahiagrass took about one week longer than that of the control plot but a good stand was obtained. Control of grassy weeds was very good, but broadleaf weeds were poorly controlled. Bahiagrass plants in the Treflan treated area grew and spread much better than those in the control area.

Tupersan: Tupersan was applied at the rate of 5 pounds of active ingredient per acre just prior to planting.

Germination of bahiagrass was adversely affected and only a partial stand was obtained. Control of both grasses and broadleaf weeds was only fair. Growth and spread of bahiagrass was better than in the control area, but not so good as in the Treflan treated area.

Treflan at $1\frac{1}{2}$ pints liquid per acre and Sesone at 2.71 pounds active ingredient per acre were tested on a field of reseeding peanuts, MS 528, to observe their usefulness as a pre-emergence herbicide. Good stands

of peanuts were obtained in both areas but Treflan appeared to be the better of the two. It gave more complete and longer lasting control of unwanted plants, particularly grasses.

A three acre field, which had been summer fallowed two years, was planted broadcast to Chiwapa millet at the rate of 15 pounds of seed per acre on June 4, 1969. No fertilizer was applied at planting time but 60 pounds Nitragen per acre was applied as a top dressing when plants were about 6" high.

Seed yield was approximately 1300 pounds per acre, even though periods of drought occurred during the growing season. The two years of fallowing and/or broadcast planting almost completely eliminated weeds. Yields were almost doubled that of any obtained in previous years when plantings were in rows.

Combine Settings for Seed Harvest

Echinochloa frumentacea Chiwapa japanese millet

Cylinder speed	-	1200 - 1400 RPM
Cylinder to concave spacing		1/4" - 1/2"
Fan valves	-	1/3 open
Adj. chaffer	-	1/2 open
Finishing sieve	-	9/64"

Glycine ussuriensis Wild reseeding soybean

Cylinder speed	-	960 RPM
Cylinder to concave spacing		5/8" - 1/2"
Fan Valves	-	Open
Adj. chaffer	-	1/2 open

Lespedeza virgata Spreading lespedeza

Cylinder speed	-	1000 - 1200 RPM
Cylinder to concave spacing		1/4" - 1/2"
Fan valves	-	1/4 open
Adj. chaffer	-	1/2 open
Finishing sieve	-	9/64"

Combine Settings for Seed Harvest - continued

Panicum texanum
Texas millet

Cylinder speed	-	1200 - 1400
Cylinder to concave spacing	-	1/4" - 1/2"
Fan valves	-	1/3 open
Adj. chaffer	-	1/2 open
Finishing sieve	-	5/32"

Panicum virgatum
Switchgrass

Cylinder speed	-	1200 - 1400 RPM
Cylinder to concave spacing	-	3/8" - 1/2"
Fan valves	-	1/4 open
Adj. chaffer	-	1/4 to 3/8 open
Finishing sieve	-	9/64"

Paspalum notatum
Wilmington bahiagrass

Cylinder speed	-	1200 - 1600 RPM
Cylinder to concave spacing	-	3/16" - 1/4"
Fan valves	-	1/4 open
Adj. chaffer	-	1/2 open
Finishing sieve	-	9/64"

Trifolium vesiculosum
Meechee arrowleaf clover

Cylinder speed	-	1200 - 1600 RPM
Cylinder to concave spacing	-	1/4" - 1/2"
Fan valves	-	1/3 open
Adj. chaffer	-	1/2 open
Finishing sieve	-	7/64"

Pure Seed and Germination Percentages of Seed Lots Tested

<u>Species</u>	<u>% :Germination</u>	<u>% :Hard Seed</u>	<u>% :Firm Seed</u>	<u>% :Pure Seed</u>
<u>Echinochloa frumentacea</u>	68.5		12.0	67.50
" <u>holubii</u>	18.0		47.0	98.35
<u>Eragrostis curvula</u>	86.5	0.0		97.15
<u>Glycine ussuriensis</u>	82.5	3.0		92.20
<u>Lespedeza virgata</u>	57.5	4.5		96.40
<u>Panicum texanum</u>	5.5		71.0	94.70
" <u>virgatum</u>	71.5	0.0		81.90
<u>Paspalum notatum</u>	90.0	0.0		73.19
" "	70.0			40.75
<u>Trifolium vesiculosum</u>	14.5	77.0		99.54

Information - Articles

Several articles were written in 1969 which publicized the Coffeeville Plant Materials Center. The titles of three such articles and the magazines in which they were printed are listed:

Kight, Troy G. 1969. Plant Centers Find New Crops for You. Progressive Farmer, Mississippi, Arkansas, and Louisiana Ed. 84(4): 72E and 72F

Knight, W. E., V. E. Ahlrich, and Morris Byrd, 1969. Registration of Meechee Arrowleaf Clover. Crop Science 9:393

Leard, H. H. 1969. Mississippi's Super Clover. Mississippi Farmer. August issue

Articles covering meetings and group visitations at the Center were printed in newspapers of a local nature but some did appear in papers of wider distribution.

